

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-14, 16-23, 25-40, and 42 will be pending. By this amendment, claims 15 and 41 have been canceled; and claims 1, 16, and 25 have been amended. No new matter has been added.

§ 103 Rejection of Claims 1, 25 and 34

In Section 2 (page 2) of the Office Action, the Examiner has rejected claims 1, 25 and 34 under 35 U.S.C. §103(a) as being unpatentable over Fujii *et al.* (U.S. Patent No. 5,966,385; hereinafter referred to as “Fujii”) in view of Eidson (U.S. Patent No. 6,278,710). Independent claims 1, 16, and 25 have been amended to address the rejection.

In the Background section of the Specification, it was disclosed that “[i]t is desirable to transmit packetised signals such as MPEG TS (Transport Stream) packets from one location or piece of equipment to another. It is known to transmit MPEG 2 TS packets via a DVB Asynchronous Serial Interface (ASI). DVB ASI is effective for the transmission of one transport stream from point to point such as between specific items of equipment but is otherwise relatively inflexible. ... a transmission system in which MPEG 2 TS packets are transmitted via an SDTI system ... provides greater flexibility than using DVB ASI. ... However, the carriage of TS packets over SDTI requires buffering to ensure that the packets are confined to the payload area of the SDTI and to allow multiple packets on each line for efficiency. The buffering process introduces delay and jitter ... there is a need to correct jitter at or before the MPEG decoder.”

Background of the Specification, page 1, lines 9-30.

To address the above-described problem, embodiments of the present invention provide for encoding and decoding digital signal transmitted as MPEG-2 transport stream (TS) packets over the Serial Data Transport Interface (SDTI). For example, the structure of the encoder in claim 1, as presented herein, includes:

“An encoder for encoding digital signal transmitted as MPEG-2 transport stream (TS) packets over the Serial Data Transport Interface (SDTI), the encoder comprising:

a clock; and

a first means for deriving timing information relating to the digital signal from the clock, wherein the digital signal comprises:

data blocks, each data block including a header containing data relating to the block and a plurality of slots, each slot having a slot header relating to the slot and a data packet;

a plurality of data packets containing at least a first part and subsequent parts of the digital signal,

a first slot including said first part of the digital signal and a reference time defining a time of production of the first part, and

each subsequent slot containing a subsequent part of the digital signal and timing information defining a time of production of said subsequent part relative to the reference time;

said first means deriving from the clock, the reference time defining the time of production of said first part and said timing information defining the times of production of the subsequent parts,

wherein said first means is configured to provide the timing information of each data packet relative to other data packets in said plurality of data packets, and

wherein a slot coarse count and a slot sub count in said plurality of slots transmitted over the MPEG-2 TS are used to generate the reference time.”

(emphasis added)

In summary, the encoder uses existing slot coarse count and slot sub count in the digital

signal transmitted as MPEG-2 Transport Packet over the SDTI to substantially reduce the jitter introduced in the buffering process.

Fujii and Eidson, individually or in combination, fail to teach or suggest using existing slot coarse count and slot sub count in the digital signal transmitted as MPEG-2 Transport Packet over the SDTI to generate the reference time used to substantially reduce the jitter. Therefore, claim 1 should be allowable over the combination of Fujii and Eidson. Furthermore, since independent claim 25 closely parallels, and includes substantially similar limitations as, independent claim 1, claim 25 should also be allowable over the combination of Fujii and Eidson. Since claim 34 depends from claim 25, claim 34 should also be allowable over the combination of Fujii and Eidson.

Accordingly, it is submitted that the Examiner's rejection of claims 1, 25 and 34 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 2-8 and 26-33

In Section 1 (page 4) of the Office Action, the Examiner has rejected claims 2-8 and 26-33 under 35 U.S.C. §103(a) as being unpatentable over Fujii in view of Eidson, in further view of O'Grady (U.S. Patent No. 6,195,392).

Based on the foregoing discussion regarding claims 1 and 25, and since claims 2-8 and 26-33 depend from claims 1 and 25, respectively, claims 2-8 and 26-33 should also be allowable over the combination of Fujii and Eidson. Further, it was disclosed in Section 1 (page 4) of the Office Action that O'Grady discloses an apparatus that produces "coarse timing info" and "fine timing info". Thus, it is submitted that O'Grady fails to teach or suggest using existing slot

coarse count and slot sub count in the digital signal transmitted as MPEG-2 Transport Packet over the SDTI to generate the reference time used to substantially reduce the jitter. Therefore, claims 2-8 and 26-33 should be allowable over the combination of Fujii, Eidson, and O'Grady.

Accordingly, it is submitted that the Examiner's rejection of claims 2-8 and 26-33 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 16-23 and 34

In Section 2 (page 7) of the Office Action, the Examiner has rejected claims 16-23 and 34 under 35 U.S.C. §103(a) as being unpatentable over Fujii, in view of Eidson, in further view of Lenihan *et al.* (U.S. Patent No. 6,169,843; hereinafter referred to as "Lenihan") and O'Grady.

Based on the foregoing discussion regarding claim 1, and since independent claim 16 closely parallels, and includes substantially similar limitations as, independent claim 1, claim 16 should be allowable over the combination of Fujii and Eidson. It was disclosed in Section 1 (page 4) of the Office Action that O'Grady discloses an apparatus that produces "coarse timing info" and "fine timing info". It was further disclosed in Section 2 (page 7) of the Office Action that Lenihan discloses an apparatus that can generate or set the time at which the packet was received relative to a system time clock. Therefore, Fujii, Eidson, Lenihan, and O'Grady, individually or in combination, fail to teach or suggest using existing slot coarse count and slot sub count in the digital signal transmitted as MPEG-2 Transport Packet over the SDTI to generate the reference time used to substantially reduce the jitter. Therefore, claim 16 should be allowable over the combination of Fujii, Eidson, Lenihan, and O'Grady. Since claims 17-23 depend from claim 16, claims 17-23 should also be allowable over the combination of Fujii,

Eidson, Lenihan, and O'Grady. Similarly, since claim 34 depends from claim 25 (and since independent claim 25 closely parallels, and includes substantially similar limitations as, independent claim 16), claim 34 should also be allowable over the combination of Fujii, Eidson, Lenihan, and O'Grady.

Accordingly, it is submitted that the Examiner's rejection of claims 16-23 and 34 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§ 103 Rejection of Claims 9-15 and 35-42

In Section 3 of the Office Action, the Examiner has rejected claims 9-15 and 35-42 under 35 U.S.C. §103(a) as being unpatentable over Fujii, in view of Eidson, in further view of Hurst *et al.* (U.S. Patent No. 6,141,358; hereinafter referred to as "Hurst").

Based on the foregoing discussion regarding claims 1 and 25, and since claims 9-14 and 35-42 depend from claims 1 and 25, respectively, claims 9-14 and 35-42 should also be allowable over the combination of Fujii and Eidson. Further, it was disclosed in Section 3 of the Office Action that Hurst teaches that blocks of data do not need to be evenly distributed or of similar size in order to be transported within an SDTI. Thus, it is submitted that Hurst fails to teach or suggest using existing slot coarse count and slot sub count in the digital signal transmitted as MPEG-2 Transport Packet over the SDTI to generate the reference time used to substantially reduce the jitter. Therefore, claims 9-14, 35-40, and 42 should be allowable over the combination of Fujii, Eidson, and Hurst. Claims 15 and 41 have been canceled.

Accordingly, it is submitted that the Examiner's rejection of claims 9-15 and 35-42 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Conclusion

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-14, 16-23, 25-40, and 42 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

PATENT
Appl. No. 09/410,504
Attorney Docket No. 450110-02215

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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